

M. Hoffmann* examined fresh peduncles of *Nelumbium luteum* and *speciosum*, the air-passages of which have diaphragms composed of a stellar-formed cellular tissue, but do not contain any such hairs as in the *Nymphææ*. M. Hoffmann found however that the sides of the air-cavities of these plants were covered with groups of crystals, which during their increase tear asunder the membranes of the inclosing cells, and in this manner project into the cavities, as in *Pontederia cordata* and *Myriophyllum*, &c.

[To be continued.]

BIBLIOGRAPHICAL NOTICES.

Naturalist's Library:—the *Natural History of Dogs*, vol. ii., and the *Natural History of Horses*.

THESE two volumes are from the pen of Lieut.-Col. Chas. Hamilton Smith, so well known for his valuable contributions to the volumes on Mammalia of Griffiths's edition of the '*Règne Animal*.'

The author includes in the family *Canidæ*, or Dog tribe, the three genera *Canis*, *Hyæna*, and *Proteles*. The first of these genera he divides into numerous sections, the characters of which, in many instances, are far from being satisfactory.

In a former volume Col. Smith treats of the *Canidæ* which are *diurnal and have round pupils to the eyes*, constituting his subgenus *Chaon*, which includes the Wolves and Jackals; these the author subdivides into no less than ten sections.

The present volume contains an account of the Domestic Dogs, the Foxes, the Hyænas, and the curious genus *Proteles*.

The Domestic Dogs Col. Smith does not consider have descended solely from a species of Wolves or Jackals, "but from genuine Wild Dogs of more than one homogeneous species." The grounds upon which this opinion is founded are discussed in the first volume.

Although we suspect naturalists will not adopt Col. Smith's numerous new subdivisions of the *Canidæ*, still we feel sure his volumes on the Dogs, as well as the volume on Horses, will be regarded by them as most valuable contributions to their branch of science—the great research displayed by the author in the treatment of his subject has rendered them such.

Col. Smith combats the opinion expressed by some authors, that the aboriginal region where the Wild Horse was first subdued was Africa; and enters into a long argument to prove the original habitation of the Domestic Horse, considered as a single species, "should be sought in High Asia, about the fortieth degree of latitude, the table-land whence riding and charioteer nomads have incessantly issued, penetrating to the east, the south, and the west, from periods evidently anterior to historical record almost to our own times; that from Central Asia, northward and westward, and including, to the

* Tijdschrift, &c., 1839, p. 271—274.

south, Bactria, the valley of the Oxus, Northern Asia, Chorasnia, and probably the whole of Europe, constitute the great primitive habitation of the Horse. Far to the north the species has no congener, but soon the *Hemionus* is known to be its companion; and further to the south, the Wild Ass extends eastward across the Indus to the Bramaputra, and west into Africa, far up the banks of the Bahar-el-Abiad and Atbara. Other congeners there are on this side the equator, but they are not sufficiently known, nor is their precise location determined."

The author however inclines to the belief that the nations who first subdued horses derived each their own race from the wild stock in their vicinity, observing in the descriptions by the poets and historians of antiquity, the uniformity of colours and characters recorded of the primitive breeds, such as the pied variety in the central mountains of Middle Asia, the dark bay southwards of the banks of the Jyhoun or Jaxartes, the dun more westward, as far as the Caspian, the white on the north shore of the Euxine, and the sooty and black in Europe. "We shall find," observes Col. Smith, "among these, races always clouded of two colours, others constantly marked with a black streak along the spine, often cross-barred on the joints, with dark or black extremities; and again, another, where circular spots, commonly clearer than the ground-colour, occur—whether they be bay, blackish ashy, or gray; the durability of these distinctions, not obliterated even in our time, during more than 3000 years of perpetual crossings of breeds, affords another and a strong argument in favour of an aboriginal difference of species in the single form of the Domestic Horse."

The 'Natural History of Fishes,' vol. ii., by J. T. Bushnan, M.D., &c., forms an introduction to the other volumes, belonging to the series, on this group of animals, treating of Fishes in relation to other animals, their natural habitat, structure, locomotion, &c.—the æconomical and commercial uses and advantages arising from our fisheries are also dwelt upon. The plates are selected for illustration of these various subjects, and therefore do not follow in any order of classification, as in the volume on Perches already published. Such a volume as the present one was much wanted, and has been ably executed by Dr. Bushnan.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

December 8, 1840.—W. H. Lloyd, Esq., in the Chair.

Mr. Gould completed the exhibition of his fifty new species of Australian birds, and characterized the following new species:—

A new *Entomyza* interesting as being the second species of that form. Mr. Gould received this bird from Port Essington, and believes that it there supplies the place of *E. cyanotis*, which is common on the eastern coast. Its distinguishing characteristics are its rather larger size, the markings of its throat being more strongly defined and the